# APPENDIX G. DETAILED NATIONAL ENERGY SAVINGS AND NATIONAL NET PRESENT VALUE OUTPUT

#### **TABLE OF CONTENTS**

G.1	Introdu	ction	G-5
		d Size PTAC, Cooling Capacity ≤ 10,000 Btu/h	
		d Size PTAC, Cooling Capacity > 10,000 Btu/h	
		d Size PTHP, Cooling Capacity ≤ 10,000 Btu/h	
		d Size PTHP, Cooling Capacity > 10,000 Btu/h	
		andard Size PTAC, All Cooling Capacity	
		andard Size PTHP, All Cooling Capacity	
		LIST OF FIGURES	
Figure (	G.2.1	Cumulative NPV Results for Standard Size PTAC, Cooling	
		Capacity ≤ 10,000 Btu/h, 7-Percent Discount Rate (Billion 2006\$)	G-5
Figure (	G.2.2	National Annual Costs and Savings for Standard Size PTAC,	
			G-6
Figure (	G.2.3	National Annual Costs and Savings for Standard Size PTAC,	
		Cooling Capacity ≤ 10,000 Btu/h, TSL 3	G-6
Figure (	G.2.4	National Annual Costs and Savings for Standard Size PTAC,	
		Cooling Capacity ≤ 10,000 Btu/h , TSL 5	G-7
Figure 0	G.2.5	National Annual Costs and Savings for Standard Size PTAC,	
		Cooling Capacity ≤ 10,000 Btu/h, TSL 6	G-7
Figure (	G.2.6	National Annual Costs and Savings for Standard Size PTAC,	
		Cooling Capacity of ≤ 10,000 Btu/h, TSL 7	G-8
Figure (	G.2.7	Cumulative NPV Results for Standard Size PTAC, Cooling	
		Capacity ≤ 10,000 Btu/h, 3-Percent Discount Rate (Billion 2006\$)	G-8
Figure (	G.2.8	National Annual Costs and Savings for Standard Size PTAC,	
		Cooling Capacity ≤ 10,000 Btu/h, TSL 1, TSL 2 and TSL 4	G-9
Figure (	G.2.9	National Annual Costs and Savings for Standard Size PTAC,	
		Cooling Capacity ≤ 10,000 Btu/h, TSL 3	G-9
Figure 0	G.2.10	National Annual Costs and Savings for Standard Size PTAC,	
		Cooling Capacity ≤ 10,000 Btu/h, TSL 5	G-10
Figure (	G.2.11	National Annual Costs and Savings for Standard Size PTAC,	
		Cooling Capacity ≤ 10,000 Btu/h, TSL 6	G-10
Figure 0	G.2.12	National Annual Costs and Savings for Standard Size PTAC,	
		Cooling Capacity ≤ 10,000 Btu/h, TSL 7	G-11
Figure 0	G.3.1	Cumulative NPV Results for Standard Size PTAC, Cooling	
		Capacity > 10,000 Btu/h, 7-Percent Discount Rate (Billion 2006\$)	G-12
Figure (	G.3.2	National Annual Costs and Savings for Standard Size PTAC,	
		Cooling Capacity > 10,000 Btu/h, TSL 1, TSL 2 and TSL 4	G-12
Figure (	G.3.3	National Annual Costs and Savings for Standard Size PTAC,	
		Cooling Capacity > 10,000 Btu/h, TSL 3	G-13

Figure G.3.4	National Annual Costs and Savings for Standard Size PTAC,	
8	Cooling Capacity > 10,000 Btu/h, TSL 5	G-13
Figure G.3.5	National Annual Costs and Savings for Standard Size PTAC,	
8	Cooling Capacity > 10,000 Btu/h, TSL 6	G-14
Figure G.3.6	National Annual Costs and Savings for Standard Size PTAC,	
1180110 0.0.0	Cooling Capacity > 10,000 Btu/h, TSL 7	G-14
Figure G.3.7	Cumulative NPV Results for Standard Size PTAC, Cooling	
8	Capacity > 10,000 Btu/h, 3-Percent Discount Rate (Billion 2006\$)	G-15
Figure G.3.8	National Annual Costs and Savings for Standard Size PTAC,	
8	Cooling Capacity > 10,000 Btu/h, TSL 1, TSL 2 and TSL 4	G-15
Figure G.3.9	National Annual Costs and Savings for Standard Size PTAC,	
8	Cooling Capacity > 10,000 Btu/h, TSL 3	G-16
Figure G.3.10	National Annual Costs and Savings for Standard Size PTAC,	
8	Cooling Capacity > 10,000 Btu/h, TSL 5	G-16
Figure G.3.11	National Annual Costs and Savings for Standard Size PTAC,	
8	Cooling Capacity > 10,000 Btu/h, TSL 6	G-17
Figure G.3.12	National Annual Costs and Savings for Standard Size PTAC,	
8	Cooling Capacity > 10,000 Btu/h, TSL 7	G-17
Figure G.4.1	Cumulative NPV Results for Standard Size PTHP, Cooling	
8	Capacity ≤ 10,000 Btu/h, 7-Percent Discount Rate (Billion 2006\$)	G-18
Figure G.4.2	National Annual Costs and Savings for Standard Size PTHP,	
8	Cooling Capacity ≤ 10,000 Btu/h, TSL 1	G-18
Figure G.4.3	National Annual Costs and Savings for Standard Size PTHP,	
S	Cooling Capacity ≤ 10,000 Btu/h, TSL 2 and TSL 3	G-19
Figure G.4.4	National Annual Costs and Savings for Standard Size PTHP,	
S	Cooling Capacity ≤ 10,000 Btu/h, TSL 4 and TSL 5	G-19
Figure G.4.5	National Annual Costs and Savings for Standard Size PTHP,	
S	Cooling Capacity ≤ 10,000 Btu/h, TSL 6	G-20
Figure G.4.6	National Annual Costs and Savings for Standard Size PTHP,	
C	Cooling Capacity ≤ 10,000 Btu/h, TSL 7	G-20
Figure G.4.7	Cumulative NPV Results for Standard Size PTHP, Cooling	
C	Capacity ≤ 10,000 Btu/h, 3-Percent Discount Rate (Billion 2006\$)	G-21
Figure G.4.8	National Annual Costs and Savings for Standard Size PTHP,	
_	Cooling Capacity ≤ 10,000 Btu/h, TSL 1	G-21
Figure G.4.9	National Annual Costs and Savings for Standard Size PTHP,	
_	Cooling Capacity ≤ 10,000 Btu/h, TSL 2 and TSL 3	G-22
Figure G.4.10	National Annual Costs and Savings for Standard Size PTHP,	
_	Cooling Capacity ≤ 10,000 Btu/h, TSL 4 and TSL 5	G-22
Figure G.4.11	National Annual Costs and Savings for Standard Size PTHP,	
	Cooling Capacity ≤ 10,000 Btu/h, TSL 6	G-23
Figure G.4.12	National Annual Costs and Savings for Standard Size PTHP,	
	Cooling Capacity ≤ 10,000 Btu/h, TSL 7	G-23
Figure G.5.1	Cumulative NPV Results for Standard Size PTHP, Cooling	
	Capacity > 10,000 Btu/h, 7-Percent Discount Rate (Billion 2006\$)	G-24
Figure G.5.2	National Annual Costs and Savings for Standard Size PTHP,	
	Cooling Capacity > 10.000 Btu/h. TSL 1	G-24

Figure G.5.3	National Annual Costs and Savings for Standard Size PTHP,	
C	Cooling Capacity > 10,000 Btu/h, TSL 2 and TSL 3	G-25
Figure G.5.4	National Annual Costs and Savings for Standard Size PTHP,	
C	Cooling Capacity > 10,000 Btu/h, TSL 4 and TSL 5	G-25
Figure G.5.5	National Annual Costs and Savings for Standard Size PTHP,	
C	Cooling Capacity > 10,000 Btu/h, TSL 6	G-26
Figure G.5.6	National Annual Costs and Savings for Standard Size PTHP,	
$\mathcal{E}$	Cooling Capacity > 10,000 Btu/h, TSL 7	G-26
Figure G.5.7	Cumulative NPV Results for Standard Size PTHP, Cooling	
C	Capacity > 10,000 Btu/h, 3-Percent Discount Rate (Billion 2006\$)	G-27
Figure G.5.8	National Annual Costs and Savings for Standard Size PTHP,	
$\mathcal{E}$	Cooling Capacity > 10,000 Btu/h, TSL 1	G-27
Figure G.5.9	National Annual Costs and Savings for Standard Size PTHP,	
$\mathcal{E}$	Cooling Capacity > 10,000 Btu/h, TSL 2 and TSL 3	G-28
Figure G.5.10	National Annual Costs and Savings for Standard Size PTHP,	
<i>8</i>	Cooling Capacity > 10,000 Btu/h, TSL 4 and TSL 5	G-28
Figure G.5.11	National Annual Costs and Savings for Standard Size PTHP,	
8	Cooling Capacity > 10,000 Btu/h, TSL 6	G-29
Figure G.5.12	National Annual Costs and Savings for Standard Size PTHP,	
8	Cooling Capacity > 10,000 Btu/h, TSL 7	G-29
Figure G.6.1	Cumulative NPV Results for Non-Standard Size PTAC, 7-Percent	5 =>
118011	Discount Rate (Billion 2006\$)	G-30
Figure G.6.2	National Annual Costs and Savings for Non-Standard Size PTAC,	
1180110 0.0.2	TSL 1, TSL 2 and TSL 4.	G-30
Figure G.6.3	National Annual Costs and Savings for Non-Standard Size PTAC,	
1180110 0.0.0	TSL 3	G-31
Figure G.6.4	National Annual Costs and Savings for Non-Standard Size PTAC,	
1180110 0.011	TSL 5	G-31
Figure G.6.5	National Annual Costs and Savings for Non-Standard Size PTAC,	
1180110 3.0.0	TSL 6	G-32
Figure G.6.6	National Annual Costs and Savings for Non-Standard Size PTAC,	0 02
1180110 0.010	TSL 7	G-32
Figure G.6.7	Cumulative NPV Results for Non-Standard Size PTAC, 3-Percent	0 02
8	Discount Rate (Billion 2006\$)	G-33
Figure G.6.8	National Annual Costs and Savings for Non-Standard Size PTAC,	
8	TSL 1, TSL 2 and TSL 4.	G-33
Figure G.6.9	National Annual Costs and Savings for Non-Standard Size PTAC,	
8	TSL 3	G-34
Figure G.6.10	National Annual Costs and Savings for Non-Standard Size PTAC,	
<b>8</b>	TSL 5	G-34
Figure G.6.11	National Annual Costs and Savings for Non-Standard Size PTAC,	
<i>5</i> 75.12 1	TSL 6	G-35
Figure G.6.12	National Annual Costs and Savings for Non-Standard Size PTAC,	
<u> </u>	TSL 7	G-35
Figure G.7.1	Cumulative NPV Results for Non-Standard Size PTHP, 7-Percent	
<b>5</b>	Discount Rate (Billion 2006\$)	G-36

Figure G.7.2	National Annual Costs and Savings for Non-Standard Size PTHP, TSL 1	G-36
Figure G.7.3	National Annual Costs and Savings for Non-Standard Size PTHP, TSL 2 and TSL 3	G-37
Figure G.7.4	National Annual Costs and Savings for Non-Standard Size PTHP, TSL 4 and TSL 5	G-37
Figure G.7.5	National Annual Costs and Savings for Non-Standard Size PTHP, TSL 6	G-38
Figure G.7.6	National Annual Costs and Savings for Non-Standard Size PTHP, TSL 7	G-38
Figure G.7.7	Cumulative NPV Results for Non-Standard Size PTHP, 3-Percent Discount Rate (Billion 2006\$)	G-39
Figure G.7.8	National Annual Costs and Savings for Non-Standard Size PTHP, TSL 1	G-39
Figure G.7.9	National Annual Costs and Savings for Non-Standard Size PTHP, TSL 2 and TSL 3	G-40
Figure G.7.10	National Annual Costs and Savings for Non-Standard Size PTHP, TSL 4 and TSL 5	G-40
Figure G.7.11	National Annual Costs and Savings for Non-Standard Size PTHP, TSL 6	G-40
Figure G.7.12	National Annual Costs and Savings for Non-Standard Size PTHP, TSL 7	G-41
	10L /	U- <del>-</del> 1

## APPENDIX G. DETAILED NATIONAL ENERGY SAVINGS AND NATIONAL NET PRESENT VALUE OUTPUT

#### **G.1** Introduction

Appendix G contains detailed output results from the National Energy Savings (NES) Spreadsheet Model. Results are presented for each of the six representative units within the four equipment classes of packaged terminal air conditioners (PTACs) and packaged terminal heat pumps (PTHPs) in terms of cumulative energy savings (source) and cumulative net present value at each trial standard level (TSL) at a national level. See Chapter 11 of this Technical Support Document (TSD) for an explanation of tables and Figures in this appendix.

#### G.2 Standard Size PTAC, Cooling Capacity ≤ 10,000 Btu/h

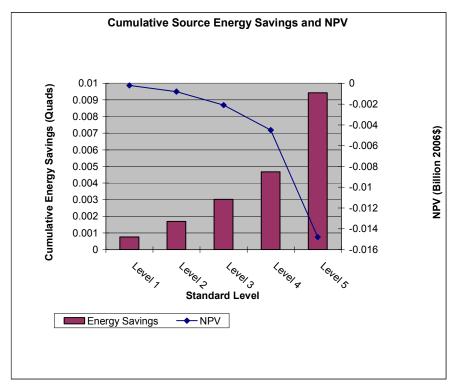


Figure G.2.1 Cumulative NPV Results for Standard Size PTAC, Cooling Capacity ≤ 10,000 Btu/h, 7-Percent Discount Rate (Billion 2006\$)

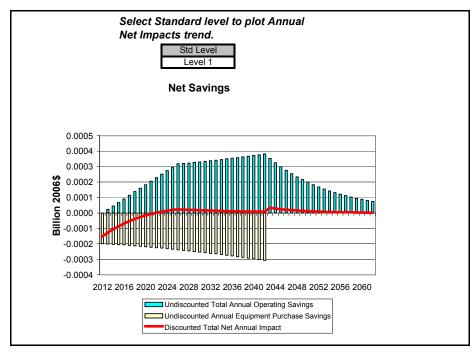


Figure G.2.2 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 1, TSL 2 and TSL 4

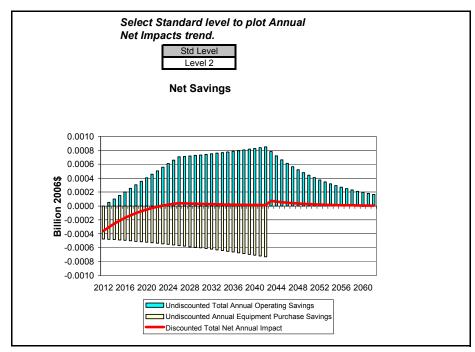


Figure G.2.3 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity  $\leq 10,000$  Btu/h, TSL 3

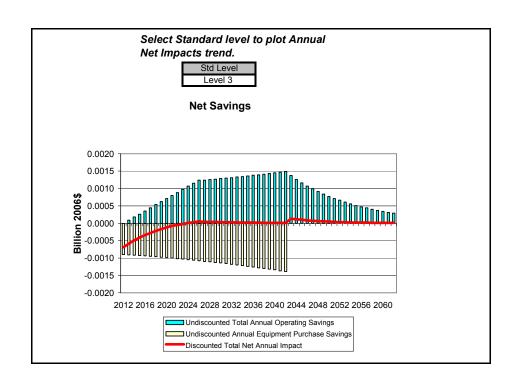


Figure G.2.4 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity  $\leq$  10,000 Btu/h , TSL 5

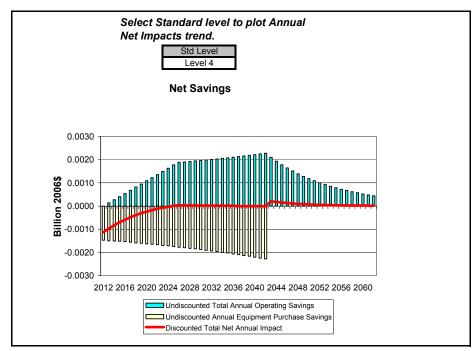


Figure G.2.5 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 6

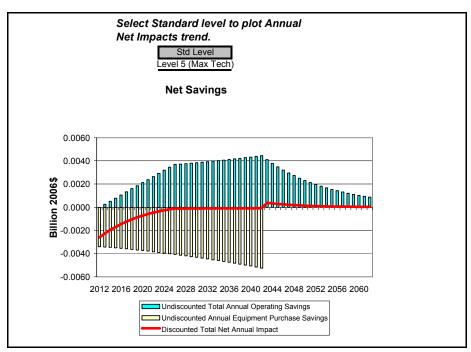


Figure G.2.6 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity of ≤ 10,000 Btu/h, TSL 7

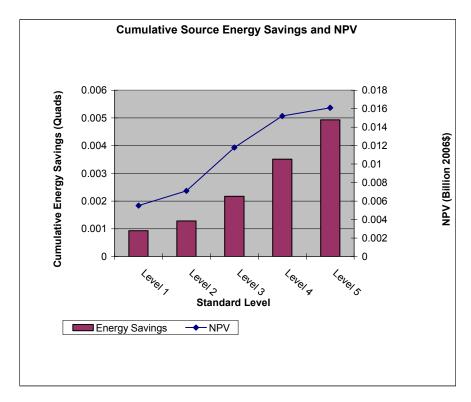


Figure G.2.7 Cumulative NPV Results for Standard Size PTAC, Cooling Capacity ≤ 10,000 Btu/h, 3-Percent Discount Rate (Billion 2006\$)

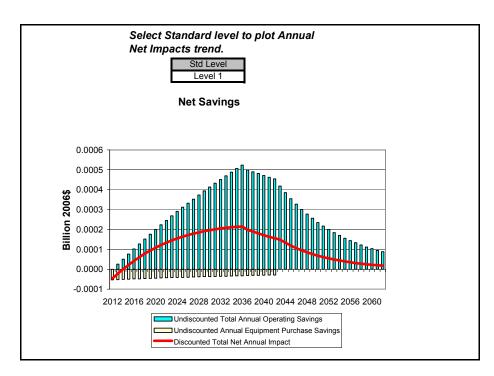


Figure G.2.8 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 1, TSL 2 and TSL 4

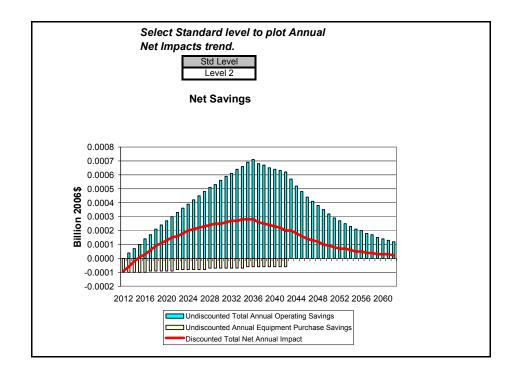


Figure G.2.9 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 3

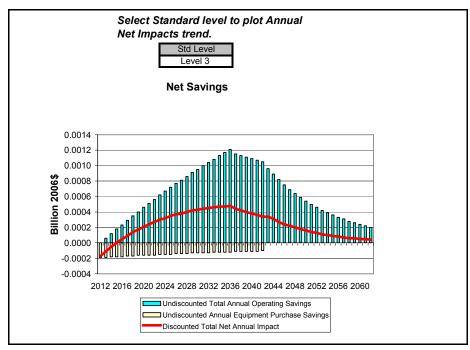


Figure G.2.10 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 5

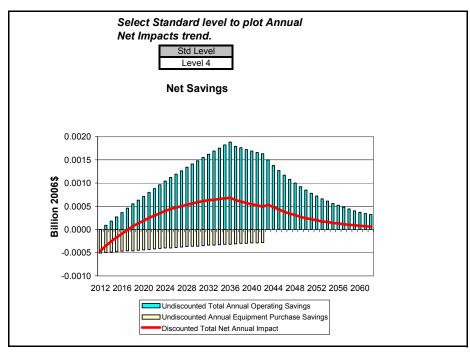


Figure G.2.11 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 6

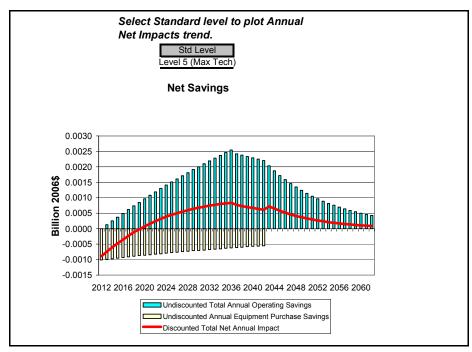


Figure G.2.12 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 7

#### G.3 Standard Size PTAC, Cooling Capacity > 10,000 Btu/h

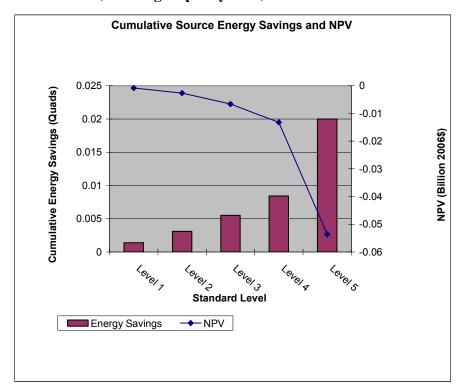


Figure G.3.1 Cumulative NPV Results for Standard Size PTAC, Cooling Capacity > 10,000 Btu/h, 7-Percent Discount Rate (Billion 2006\$)

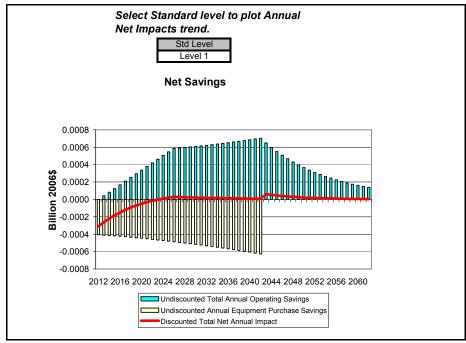


Figure G.3.2 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity > 10,000 Btu/h, TSL 1, TSL 2 and TSL 4

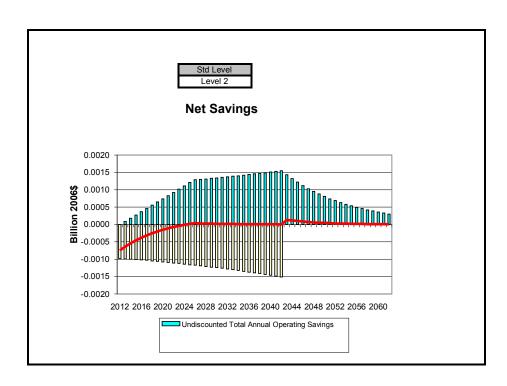


Figure G.3.3 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity > 10,000 Btu/h, TSL 3

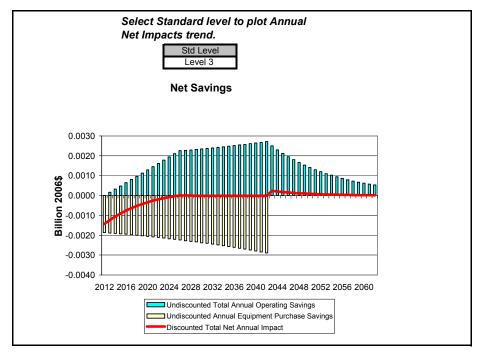


Figure G.3.4 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity > 10,000 Btu/h, TSL 5

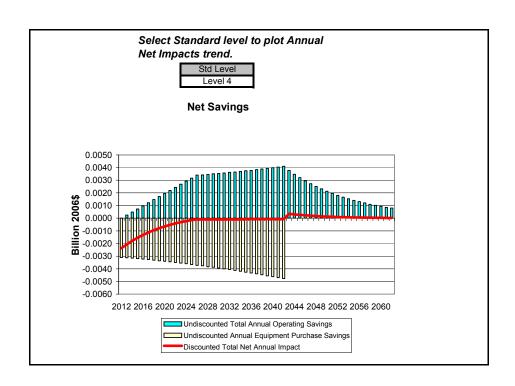


Figure G.3.5 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity > 10,000 Btu/h, TSL 6

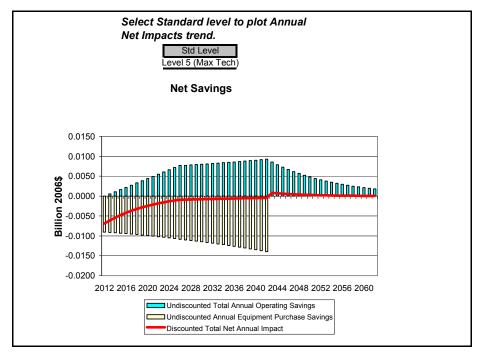


Figure G.3.6 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity > 10,000 Btu/h, TSL 7

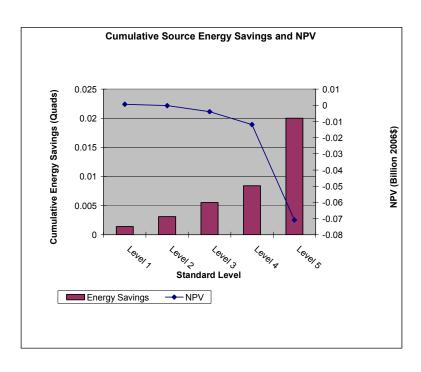


Figure G.3.7 Cumulative NPV Results for Standard Size PTAC, Cooling Capacity > 10,000 Btu/h, 3-Percent Discount Rate (Billion 2006\$)

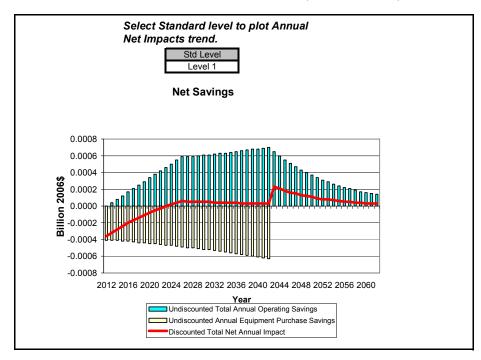


Figure G.3.8 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity > 10,000 Btu/h, TSL 1, TSL 2 and TSL 4

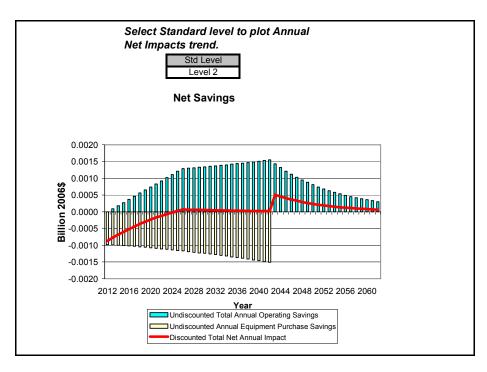


Figure G.3.9 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity > 10,000 Btu/h, TSL 3

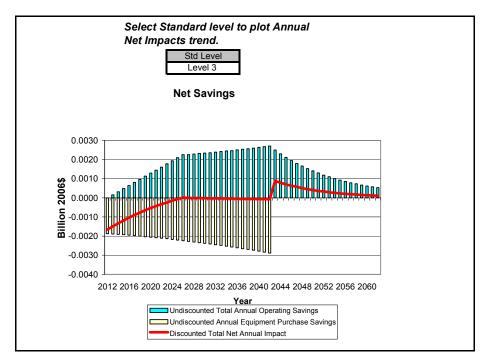


Figure G.3.10 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity > 10,000 Btu/h, TSL 5

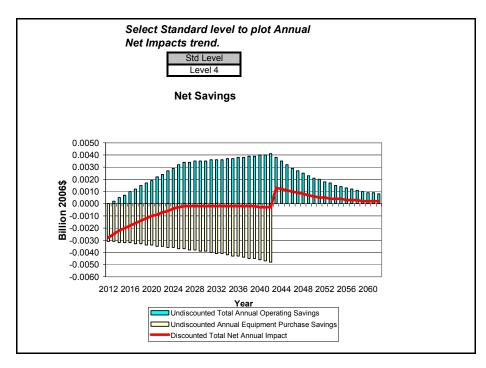


Figure G.3.11 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity > 10,000 Btu/h, TSL 6

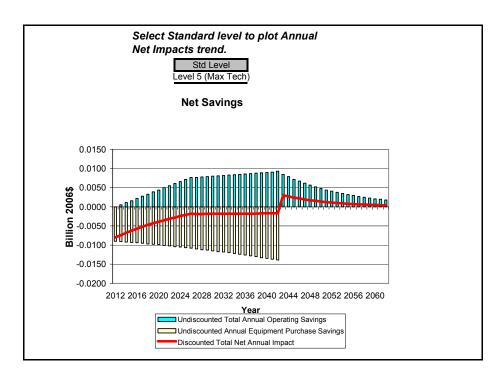


Figure G.3.12 National Annual Costs and Savings for Standard Size PTAC, Cooling Capacity > 10,000 Btu/h, TSL 7

#### G.4 Standard Size PTHP, Cooling Capacity ≤ 10,000 Btu/h

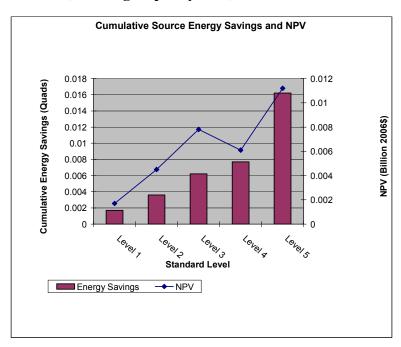


Figure G.4.1 Cumulative NPV Results for Standard Size PTHP, Cooling Capacity ≤ 10,000 Btu/h, 7-Percent Discount Rate (Billion 2006\$)

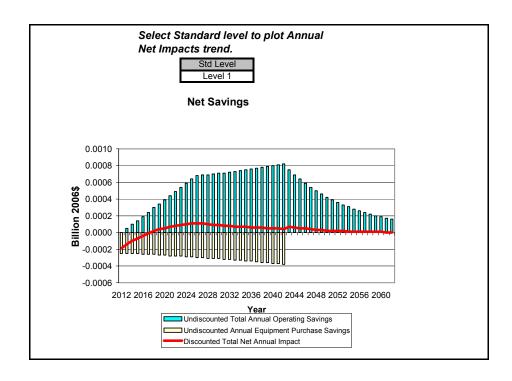


Figure G.4.2 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity ≤ 10,000 Btu/h, TSL 1

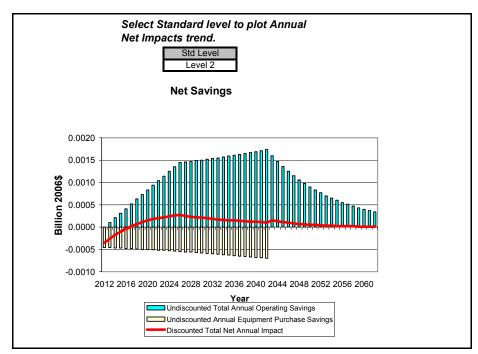


Figure G.4.3 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 2 and TSL 3

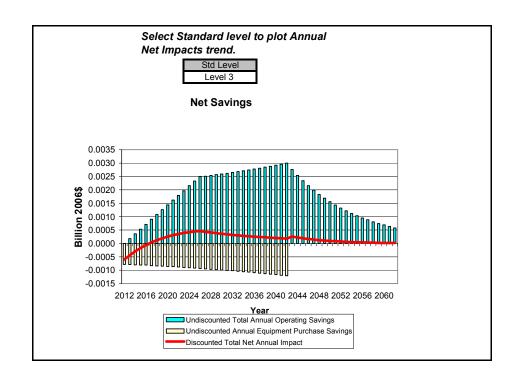


Figure G.4.4 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 4 and TSL 5

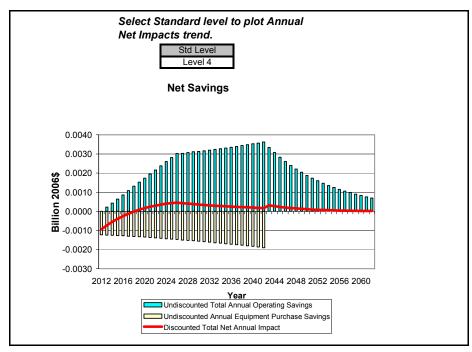


Figure G.4.5 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 6

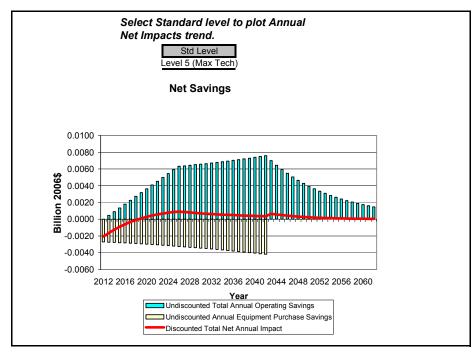


Figure G.4.6 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 7

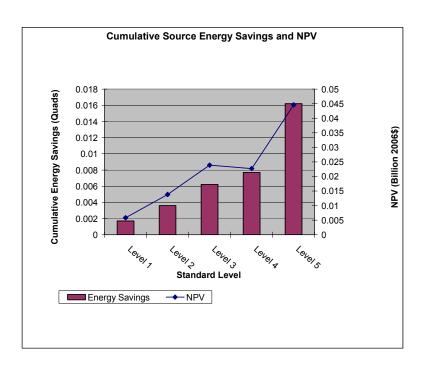


Figure G.4.7 Cumulative NPV Results for Standard Size PTHP, Cooling Capacity ≤ 10,000 Btu/h, 3-Percent Discount Rate (Billion 2006\$)

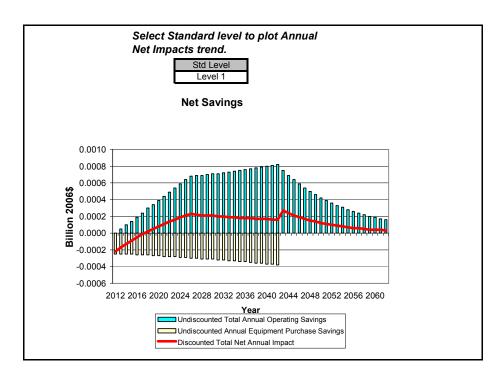


Figure G.4.8 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 1

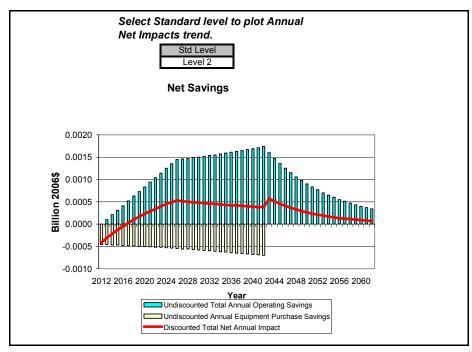


Figure G.4.9 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 2 and TSL 3

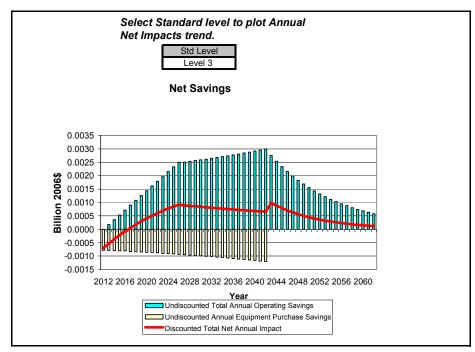


Figure G.4.10 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 4 and TSL 5

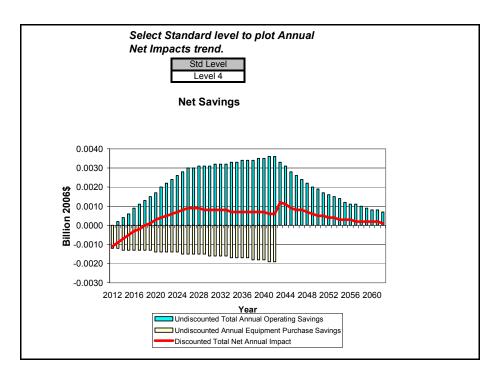


Figure G.4.11 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 6

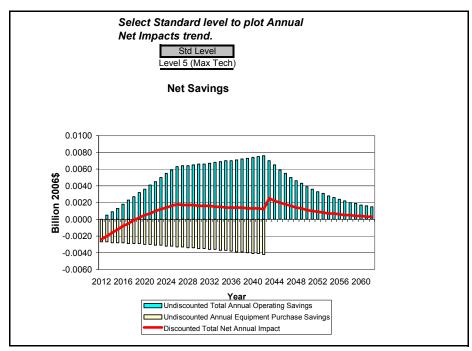


Figure G.4.12 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity  $\leq$  10,000 Btu/h, TSL 7

#### G.5 Standard Size PTHP, Cooling Capacity > 10,000 Btu/h

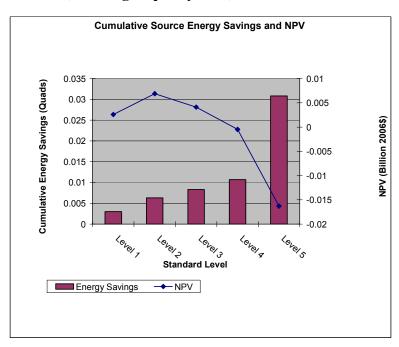


Figure G.5.1 Cumulative NPV Results for Standard Size PTHP, Cooling Capacity > 10,000 Btu/h, 7-Percent Discount Rate (Billion 2006\$)

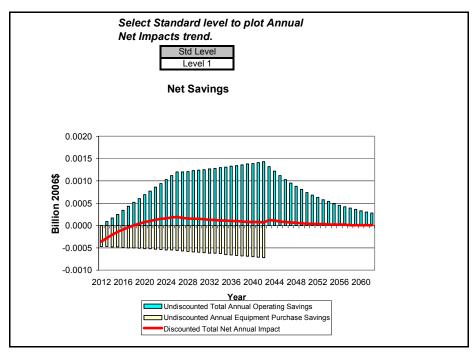


Figure G.5.2 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity > 10,000 Btu/h, TSL 1

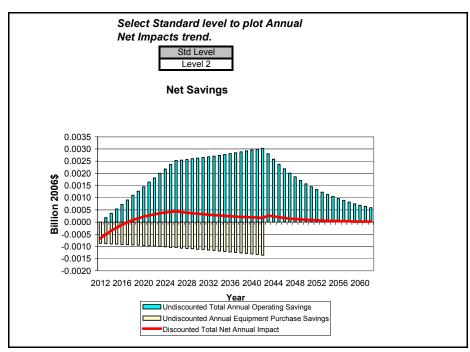


Figure G.5.3 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity > 10,000 Btu/h, TSL 2 and TSL 3

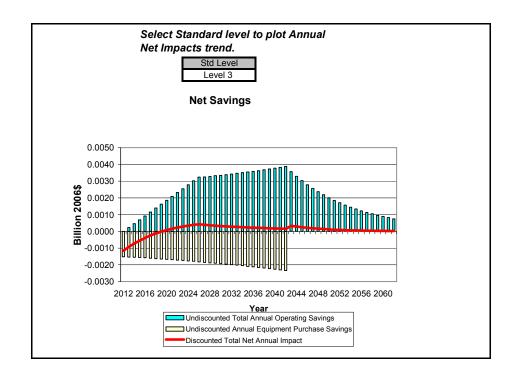


Figure G.5.4 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity > 10,000 Btu/h, TSL 4 and TSL 5

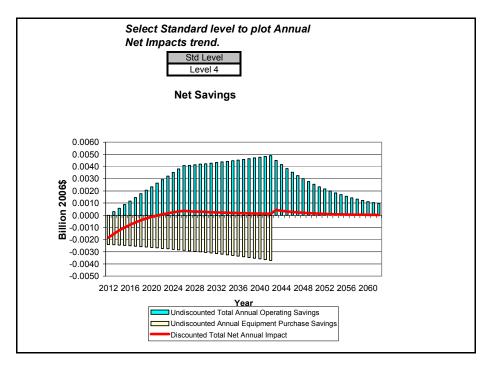


Figure G.5.5 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity > 10,000 Btu/h, TSL 6

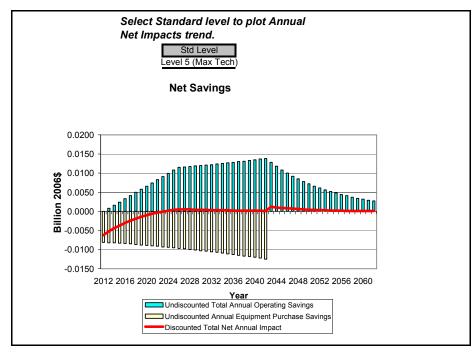


Figure G.5.6 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity > 10,000 Btu/h, TSL 7

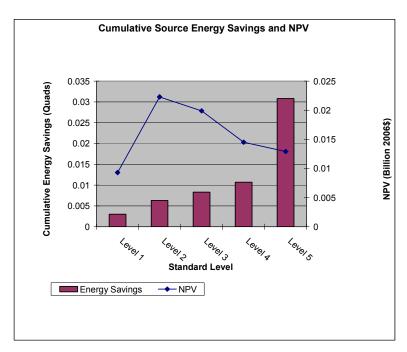


Figure G.5.7 Cumulative NPV Results for Standard Size PTHP, Cooling Capacity > 10,000 Btu/h, 3-Percent Discount Rate (Billion 2006\$)

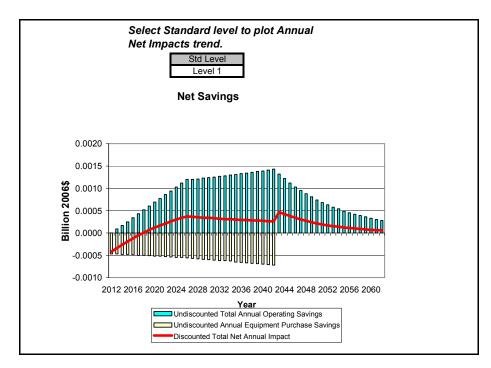


Figure G.5.8 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity > 10,000 Btu/h, TSL 1

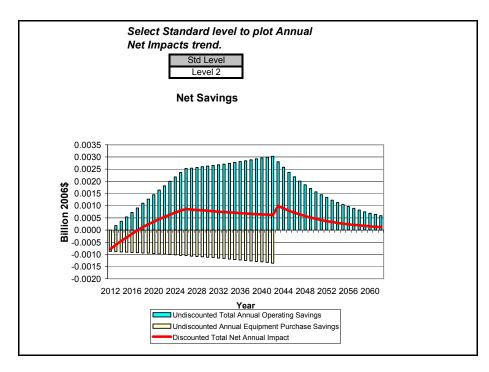


Figure G.5.9 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity > 10,000 Btu/h, TSL 2 and TSL 3

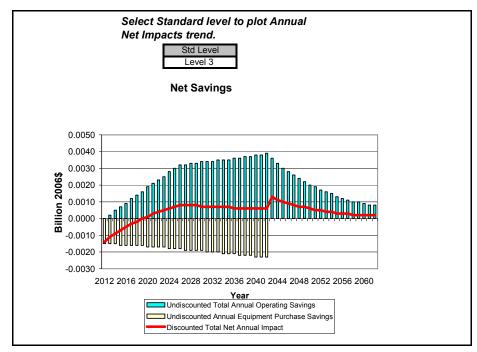


Figure G.5.10 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity > 10,000 Btu/h, TSL 4 and TSL 5

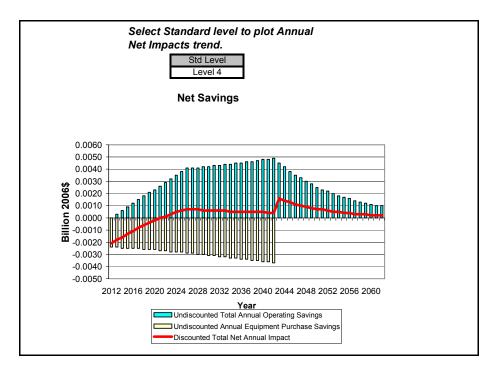


Figure G.5.11 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity > 10,000 Btu/h, TSL 6

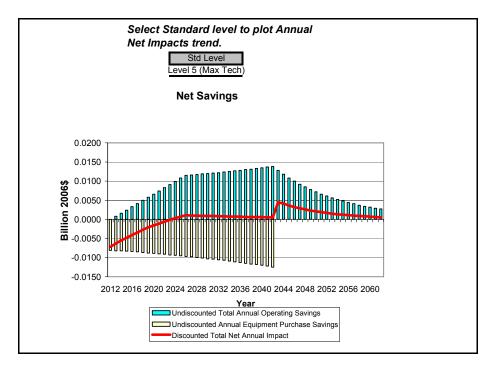


Figure G.5.12 National Annual Costs and Savings for Standard Size PTHP, Cooling Capacity > 10,000 Btu/h, TSL 7

#### G.6 Non-Standard Size PTAC, All Cooling Capacity

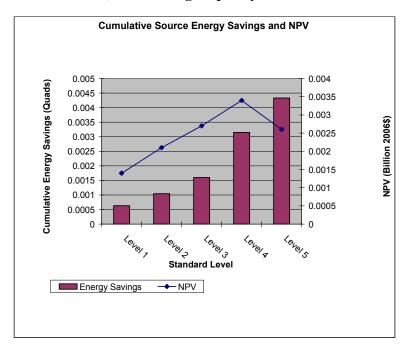


Figure G.6.1 Cumulative NPV Results for Non-Standard Size PTAC, 7-Percent Discount Rate (Billion 2006\$)

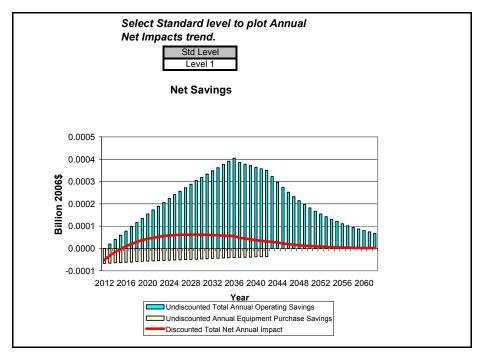


Figure G.6.2 National Annual Costs and Savings for Non-Standard Size PTAC, TSL 1, TSL 2 and TSL 4

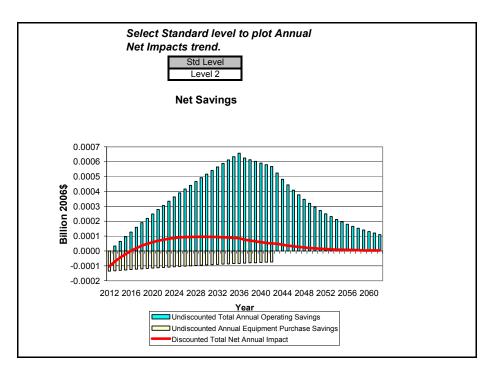


Figure G.6.3 National Annual Costs and Savings for Non-Standard Size PTAC, TSL 3

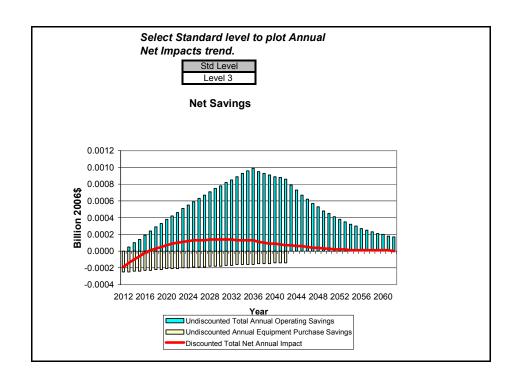


Figure G.6.4 National Annual Costs and Savings for Non-Standard Size PTAC, TSL 5

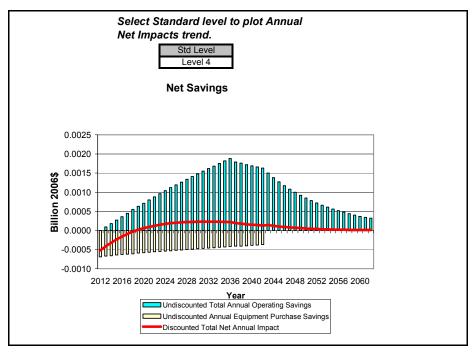


Figure G.6.5 National Annual Costs and Savings for Non-Standard Size PTAC, TSL 6

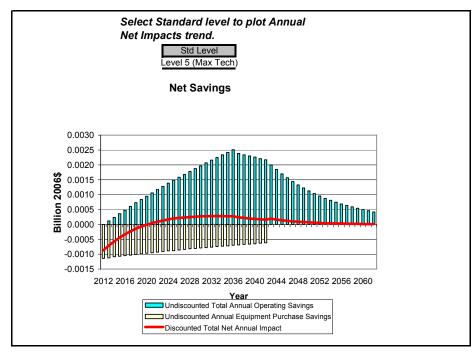


Figure G.6.6 National Annual Costs and Savings for Non-Standard Size PTAC, TSL 7

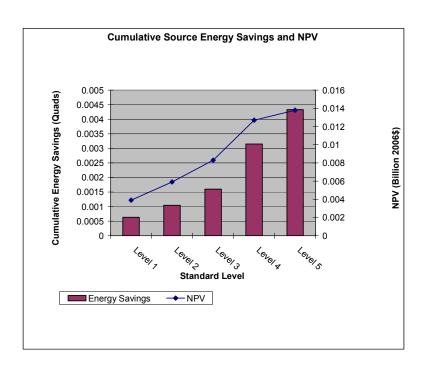


Figure G.6.7 Cumulative NPV Results for Non-Standard Size PTAC, 3-Percent Discount Rate (Billion 2006\$)

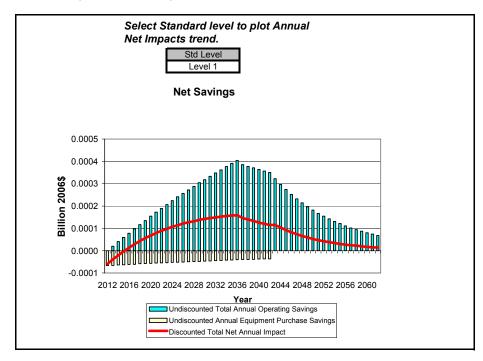


Figure G.6.8 National Annual Costs and Savings for Non-Standard Size PTAC, TSL 1, TSL 2 and TSL 4

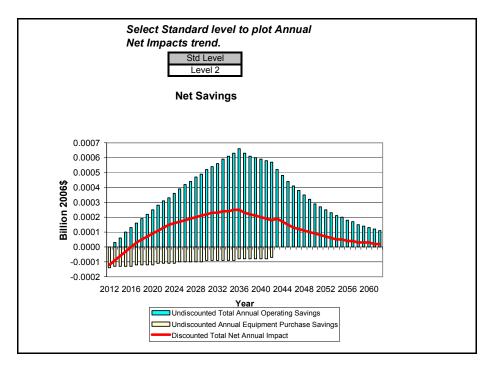


Figure G.6.9 National Annual Costs and Savings for Non-Standard Size PTAC, TSL 3

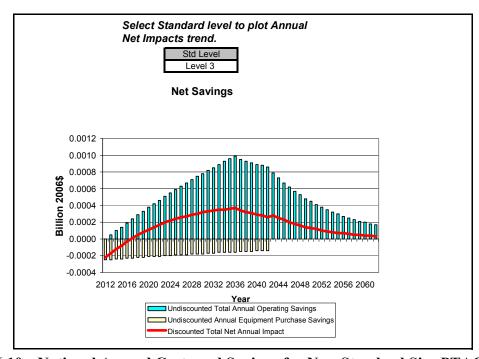


Figure G.6.10 National Annual Costs and Savings for Non-Standard Size PTAC, TSL 5

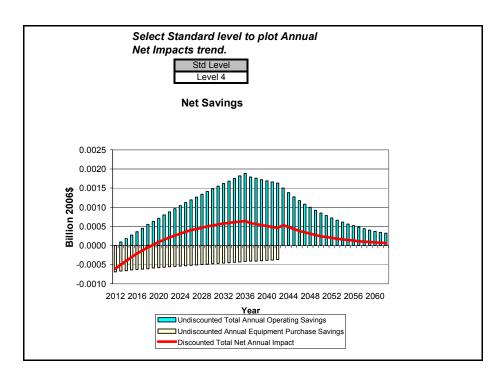


Figure G.6.11 National Annual Costs and Savings for Non-Standard Size PTAC, TSL 6

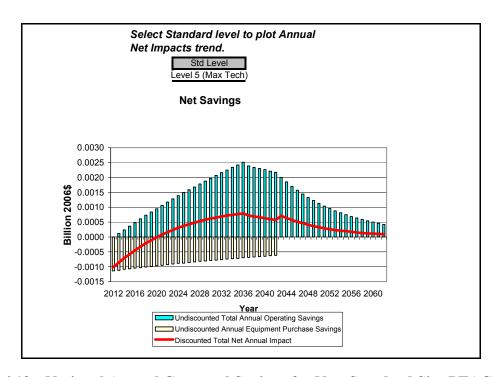


Figure G.6.12 National Annual Costs and Savings for Non-Standard Size PTAC, TSL 7

### G.7 Non-Standard Size PTHP, All Cooling Capacity

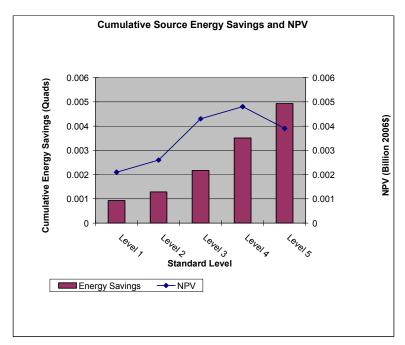


Figure G.7.1 Cumulative NPV Results for Non-Standard Size PTHP, 7-Percent Discount Rate (Billion 2006\$)

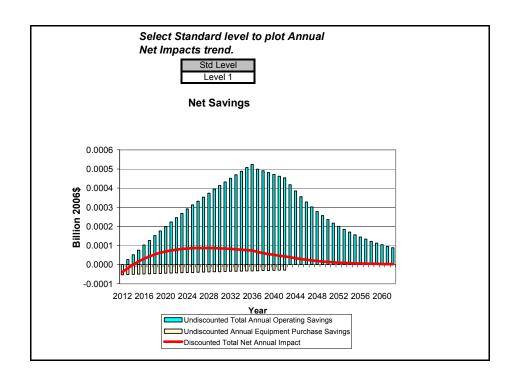


Figure G.7.2 National Annual Costs and Savings for Non-Standard Size PTHP, TSL 1

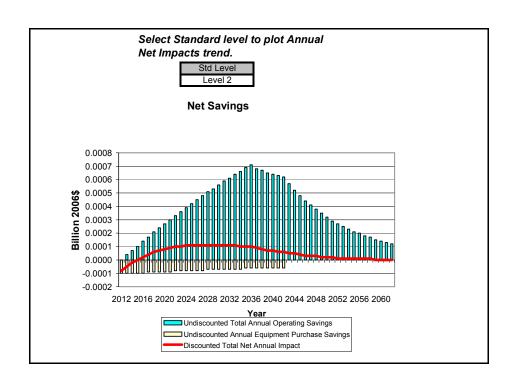


Figure G.7.3 National Annual Costs and Savings for Non-Standard Size PTHP, TSL 2 and TSL 3

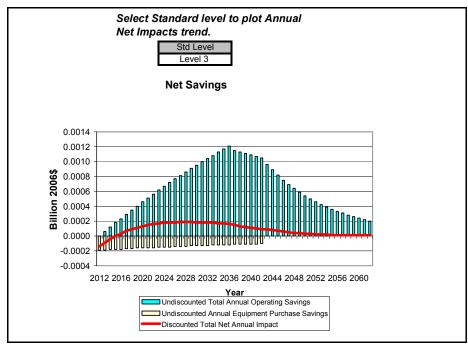


Figure G.7.4 National Annual Costs and Savings for Non-Standard Size PTHP, TSL 4 and TSL 5

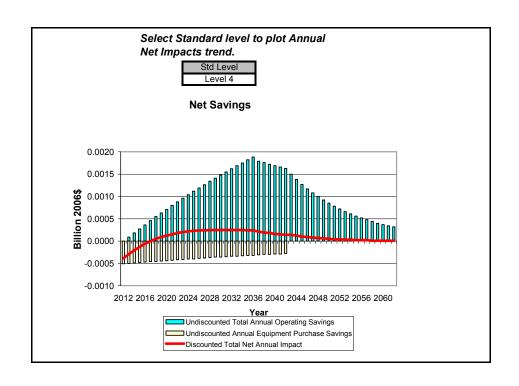


Figure G.7.5 National Annual Costs and Savings for Non-Standard Size PTHP, TSL 6

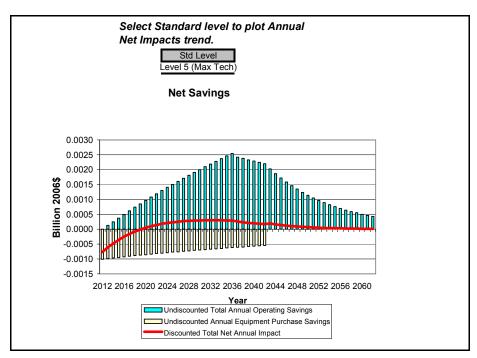


Figure G.7.6 National Annual Costs and Savings for Non-Standard Size PTHP, TSL 7

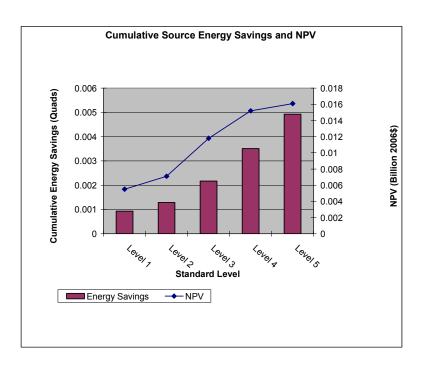


Figure G.7.7 Cumulative NPV Results for Non-Standard Size PTHP, 3-Percent Discount Rate (Billion 2006\$)

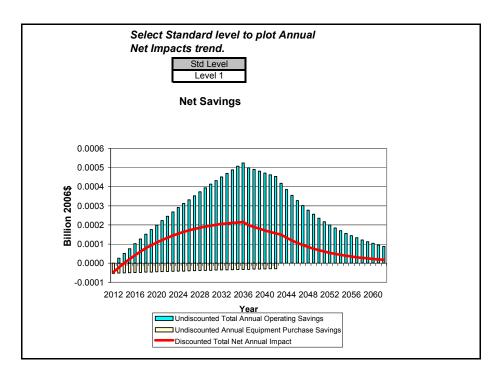


Figure G.7.8 National Annual Costs and Savings for Non-Standard Size PTHP, TSL 1

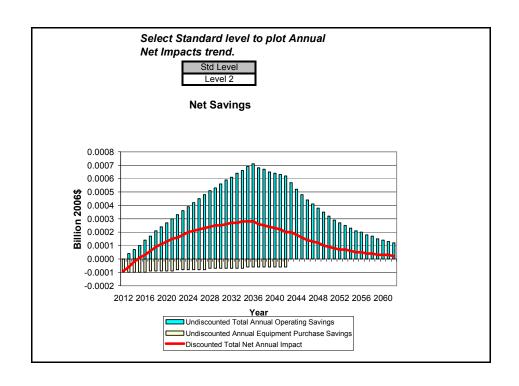


Figure G.7.9 National Annual Costs and Savings for Non-Standard Size PTHP, TSL 2 and TSL 3

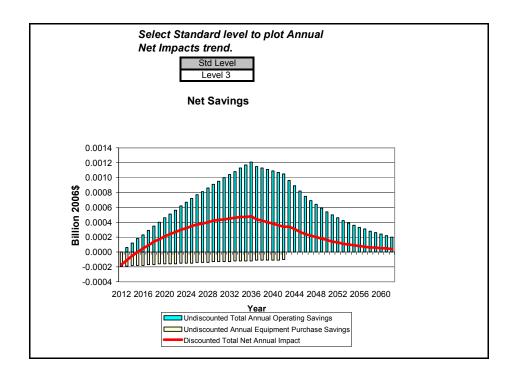


Figure G.7.10 National Annual Costs and Savings for Non-Standard Size PTHP, TSL 4 and TSL 5

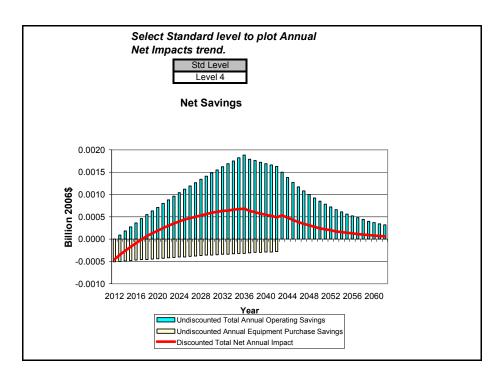


Figure G.7.11 National Annual Costs and Savings for Non-Standard Size PTHP, TSL 6

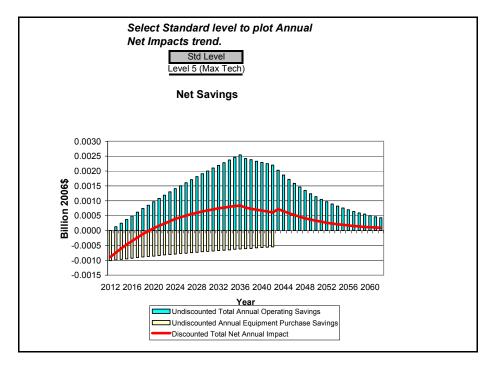


Figure G.7.12 National Annual Costs and Savings for Non-Standard Size PTHP, TSL 7